

Date: Friday, 9/21/2007 12:59:26 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : X-TUBE EXTRUSION OH-58
Job Number : 34775	
Estimate Number : 10005	
P.O. Number :	Part Number : D6005128
This Issue : 9/21/2007 S.O. No. :	Drawing Number : D6005 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LANDING GEAR	Drawing Revision : A
Previous Run : 34686	Material :
Written By : <u>JA 07/09/24</u>	Due Date : 9/28/2008 Qty: 28 Um: Each
Checked & Approved By : <u>JA 07/09/24</u>	
Comment : Est Rev.C 04.06.15 Added tolerance to Step 2 KJ/JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 4660CL 7/10/24

(28)

- a) Order as per Dwg D6005
- b) Material: 2.750 x 0.375 wall 7075-T6/T6511 (WW-T-7007 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube
- c) Minimum ultimate tensile strength = 77 ksi
- d) Minimum tensile yield strength = 66 ksi
- e) Tolerance are per ASTM B210 (see details on Dwg D6005)
- f) Material certification required

2.0	D6005128P	Crosstube material
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 28.0000 Each(s)
 Crosstube material

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

CL 8/28/20

(24)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK
 Ensure Material certification comply to Dwg D6005

8 08/08/20 (24) counted

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: X-TUBE EXTRUSION OH-58

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Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

u/a 508/08/21

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location

GA LG

a.m 08-08-21

(2Y)

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/08/22

Job Completion



mf 08-08-22

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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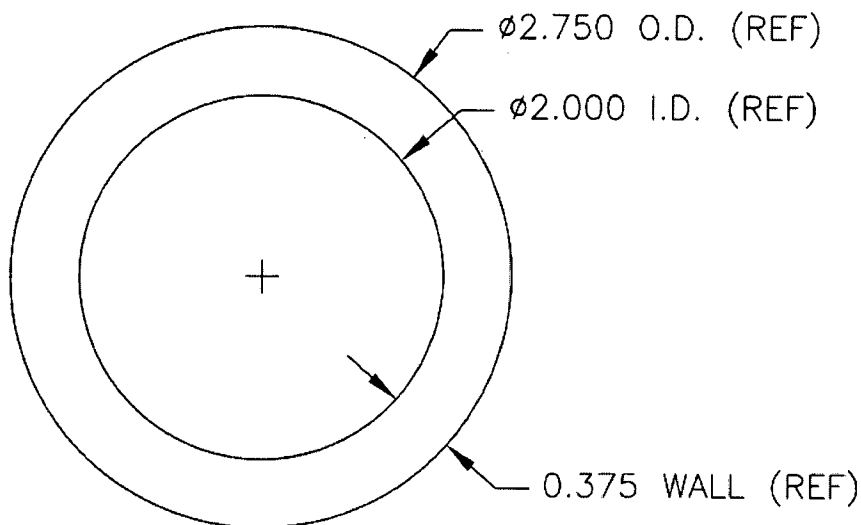
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6005	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *[Signature]*



NOTES

- 1) D6005-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 128" LONG TUBE: D6005-128

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34775

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ALUnna

Abnahmeprüfzeugnis 3.1 - EN 10204:2004**Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004**

Kunde: Dart Aerospace Ltd.
Client: 1270 Aberdeen Street
 K6A1K7 Hawkesbury, ON Canada
Produkt: Rohre nahtlos gepresst
Product / Produit: Tubes seamless extruded
Spezifikation: AMS - QQ - A - 200/11E; Spezifikation Dart Aerospace 6005
Specification:
Werkstoff: 7075
Alloy/Alliage:
Abmessung: 2,750 INCH x 2,000 INCH x 0,375 INCH x 128,000 INCH
Size / Dimension: D6005-128 2.750 x 0.375 x 128
Kennzeichnung: ALUnna - Cert No. 1207/08 - 7075 - T 6511 - Cast No. 81744 - AMS - QQA 200/11 - 2.750" OD X 0.375" Wall - Heat
Marking/Marquage: No. 1840 - Lot 27068/3-1 - PO. 00004660
Lieferung: pcs. lbs
 Delivered Material / Matériel délivré: 24 873
Country of Manufacture: Germany

Zeugnisnummer: 1207/08
Cert No. / No. du certificat: PO 00004660
Bestellnummer:
Order No. / No. de commande:
Auftrag: 27068/3
Our Reference/Notre Reference:

Zustand: T 6511
Temper/État:

1. Chemische Analyse

Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
81744	0,06	0,13	1,35	0,04	2,47	0,18	5,83	0,04	0,01	0,03	0,01	0,01	0,0001

Hydrogen content: 0,10 **ccm/100 g Al** Elements without indication < 0,01 % **country of melt manufacturer: Germany**

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat Lot No.
min.	77,0	66,0				
max.						
1	88,015	81,200	10,0	S CS/08/20		1840 - 24 pcs.

RMS outside 25 - max. 20,8 µ"

Ergebnis der Prüfungen: Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order
Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

h p: